

THE HISTORY OF MEDICINE IN IRELAND

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IF one compares the development of medicine in Ireland with that of the early Egyptian, Greek, Moslem and Roman civilizations it is essential to remember that civilization spread slowly from the Mediterranean basin westwards and even more slowly northwards, that highly developed cultures existed in Egypt and even Crete, while nearby Pompei in Southern Italy was still barbarous and that men were moving around France and even Southern England while Ireland was still under ice. Yet I hope that when you have heard me out, you will agree that in this country and particularly in these parts, we have a medical tradition to be proud of.

But what of the early civilisations? There were, it is claimed, five successive colonizations before the Gauls or Gaels made their way to Ireland from the European mainland around 350 years before Christ.¹ The Gauls were a celtic people who probably originated in the Danube Basin. The Pre-celts worked with gold, silver and bronze, but succumbed to the invader who had been using iron for their weapons for four centuries.

The earliest physicians of whom we have any extensive knowledge, were members of the priestly Druid race, the Tuath-de-Dannan.^{2, 3, 4} They were Diancecht, his daughter Airmeadh and Miach. Diancecht was known as the God of Healing and is said to have practised hypnotism. He is said to have recognized fourteen disorders of the stomach. The prescription for his porridge has been handed down to recent times. It consisted of a brew of hazel buds, dandelions, chick-weed, wood-sorrel and oatmeal. Also among the Pre-celts were the Firbolgs, which translated means 'The men of the Leather Bag', who as their name suggests worked largely with leather and may have been the ancestors of our present day gypsies. The Tuath-de-Dannan beat the Firbolg at the battle of Moytura in Co Sligo, in 487 BC. Legend has it that the leader of the Tuath-de-Dannan had his hand cut off. It is said he was later fitted with an artificial hand made of silver with motion in every finger and joint. Thereafter he was known as 'Silver Hand', but because of this impediment was prevented from becoming high king of the Tuath-de-Dannan. This explains why a silver hand is part of the arms of the Royal College of Physicians of Ireland. Then there were the Picts, meaning tattooed people, who occupied Ulster some 50 years BC and whose most famous son was Cuchulain. He was one of the Emania Warriors, a professional army known as the Red Branch Knights and commanded by the legendary Finn MacCool. The ramparts and foundations of the Emania Fort still exist two miles outside the City of Armagh. Conor MacNessa who died in 37 AD was King of Ulster at that time. Physicians figured conspicuously in the tales of the Red Branch Knights. There was an organized army medical service to the Ulster Forces in the war of the Tain. Finqur Farthliarg was their commanding officer and King Conor's personal physician. His official residence was at Slieve Fuaid in South

Armagh.⁵ Each member of the medical corps carried a bag full of medicines and dressings. In a story of Finn MacCool it is stated that a piece of skin of a ewe was grafted to an open wound of one of his warriors. The graft took so well that the fleece of wool which grew from the graft had to be periodically shorn. King Cormac who reigned in AD 227 made an order that all future monarchs of Ireland should at all times be accompanied by ten persons, a chief, a judge, a druid, a physician, a poet, a historian, a musician and three servants. This order apparently lasted until the death of Brian Boru in 1014 AD.

Physiotherapy and medicated herbal baths were apparently used extensively. The baths were used in the treatment of skin diseases and for their antiseptic effect. There is the story that after one particular battle the wounded were bathed in the milk of one hundred and fifty white hornless cows to protect them from the effect of poisoned weapons.⁴ On Inishmurray off the Donegal coast and elsewhere there are remains of sweating houses. These are stone houses some 5 feet by 7 and some 3 to 4 feet high with a narrow entrance. Before use, a large fire was lit inside until the house became like an oven. The embers were then scraped out and the patient wrapped in a blanket crept inside, where he remained until he sweated profusely. On emerging he plunged into a pool of cool water and was thoroughly rubbed until he glowed all over. This treatment is similar to the Finnish and Russian sauna baths which are so popular today. In some places, sweating houses were large enough to accommodate several persons at one time. This treatment is said to have been practised in Ireland until relatively recently.

Medicine in those days must have been held in high standing as several authorities record that in the second century BC Josina, the ninth King of Scotland, who occupied the throne from 161 to 137 BC was educated in Ireland by native physicians. He is credited with the authorship of a treatise on the use of herbs.

There gradually developed in those days, a law of the land known as the Brehon Laws.⁶ These laws were first promulgated several hundred years before Christ and became gradually refined over the centuries. They were only abolished in the reign of James I (1603-1625). The Brehon Laws gave special standing to someone in charge of a sick person. He was responsible for providing him with a proper house, not dirty or snail smeared, nor one of those inferior houses, a pig-house, sheep-house, or cow-house. Other laws were as follows. A person engaged on an errand of mercy for a physician or compounding medicine was exempt from the law until the task was done. These tasks included seeking a midwife, struggling with an epileptic or securing a madman. An unlawful physician was required to inform the patient of the fact that he was unqualified before performing an operation. Lawful or unlawful physicians were expected under penalty of a fine, to warn the patient who might not respond to treatment. According to the Book of Accill, provision was made in the Brehon Laws for a medical referee where a dispute arose between patient and physician as to treatment. Compensation, including payment of a physician was payable by the aggressor in quarrels resulting in injury. Several sections of the laws dealt with the care of the elderly, the poor and the insane. If a sane adult had any part in bringing about sexual connections between two lunatics he was responsible for the children born of the union. There was a levy on the landowner for the poor and there were very strict laws on the maintenance and care of the elderly.

The immigrant Gaels or Celts, these people were virtually synonymous, who came to Ireland were a hardy people. As they pushed further afield they escaped for a time at least, the infectious diseases then present in most of the heavily inhabited areas of Europe. They were an enterprising race, who in the third and fourth centuries raided far and wide to England and the Continent even as far as the Alps. For example in the year 404, Niall of the Nine Hostages was killed aboard his ship in the English Channel while on a raiding expedition. In one of those raids in the year 432, a young boy, later to be known as St. Patrick, was taken hostage.

Christianity brought an end to the feuding at home and the foraging abroad, and for three hundred years, peace came to Ireland and Ireland had its golden age. These early Christians set up monasteries and schools of learning. During this period, as I am sure you are all aware, craftsmen produced the Ardagh Chalice, the Tara Brooch and the Book of Kells. The equally decorated, but black and white version, the Book of Armagh was also written at this time. Scholars came from many lands to study at the monastic establishments. In 808, when the scribe Ferdonach was busy working on the Book of Armagh, there were 5,000 students studying in Armagh. One early historian states that books were supplied free of charge to the hordes of foreign students.^{1, 7, 8} Even among the unconverted, the country was relatively peaceful. The local chieftains went as far as to elect a high king, who resided at Tara. In the reign of each high king there was a great feast held there, with up to five hundred bards in attendance. The Annals of the Four Masters, report that these feasts were attended by the leading physicians of the day.

Major epidemics occurred in these times throughout the known world and helped to change history.⁹ The plague of Athens in 432 BC contributed more to the downfall of the Athenian Empire than the war with Sparta. This is thought to have been a virulent scarlet fever in a susceptible population. The Roman Empire was decimated by plague which was more catastrophic than the attacks of the Goths and the Vandals. From the description of the disease this appears to have been malaria brought back by the conquering Roman Armies. There was a plague in Ireland in 250 AD of unknown origin, consisting of vomiting, diarrhoea, ulcerated sore throat, a burning fever and gangrene of the hands and feet. There was another again in 442. In 540 AD there was an epidemic that lasted thirty years referred to as the 'Corn Coloured Yellowness' or 'Buidhe Chonail', which was probably yellow fever or possibly malignant malaria.¹⁰ In 569, the Annals of Innisfallen refer to Bolgach, or smallpox, for the first time, while the Annals of Clonmacnoise refer in 675 to the great leprosy called the pox. We can't be sure that this was indeed smallpox, but it may well have been. The bubonic plague that destroyed the Byzantine Empire, probably reached Ireland towards the end of the 6th century. In the years 664 and 665, there was a dreadful pestilence during which two thirds of the inhabitants of this country were said to have perished. There were many other plagues too numerous to mention.

It has been said that Christianity benefited from illness and the major epidemics that then existed. The miracles of Christ, the miraculous power entrusted to his followers and the belief in the resurrection after death, gave hope to the sick and those living amidst a plague, while the Christian ethos of caring gave practical comfort. So medicine was closely linked to monasteries in Ireland. The early christian hospitals attached to the monasteries were designed upon the same plan as

the early churches. A central altar or area with two or four long naves or wards leading from it and a number of side wards or chapels. Treatment was in the hands of physician priests assisted by brothers and sisters, who combated disease, mostly by prayer. There was a general fatalistic acceptance of illness and its outcome. The care of the soul was more important than that of the body. The cures were mainly herbal. There were herbal gardens attached to most of the monasteries. The treatments were generally ineffective and not as well documented as on the Continent. There are some reports such as the story of a man having a thorn stuck in his foot. His legs became swollen and his joints inflamed and he suffered a high temperature. He was wrapped in sheepskin rugs, the thorn came out and he recovered. There is the story of the youth who became paralyzed, starting in his feet and spreading gradually through all his limbs, possibly an ascending paralysis of the kind seen in infective polyneuritis. After some time he asked could he wear the shoes of a particular saint, who had died some time before. He had them put on his feet and when he awoke, he had regained the use of his limbs. We may speculate that when he felt some recovery in his feet he asked for the shoes and the cure has since been exaggerated. There are other more practical cures documented. A young man came to St. Columba with a persistent nose-bleed, whereupon the saint pressed both nostrils with the two fingers of his right hand and soon stopped the haemorrhage. There is a description of a monk who got a deaf mute to talk by practising speech therapy with him over a prolonged period.¹¹

There was also a body of lay medical practitioners. Medical knowledge was generally passed from father to son so that medical dynasties were common. Charms worn about the body were a frequent device to ward off disease or reduce its effect. For stomach ache the heels of a hare were to be placed on the clothing near the stomach. For swollen eyes, the eye of a crab had to be placed upon the neck.⁴ In cases of fever the right foot of a dog was to be hung over a patient's arm. Skin diseases due to infestation associated with poor hygiene were common, as were eye diseases. Saliva was thought to heal eye disease, though bathing the eyes in salt and water was also advised. Honey was apparently a very effective antiseptic and was used to cover wounds. Mandrake and the poppy were used for sleep.

Cupping using a glass or horn or special instrument called a gipne was used to relieve pain, by creating a vacuum over the painful skin area.² Splinting of fractures was carried out often in association with herbal remedies. Poulticing was used to drain abscesses which were incised and drained with tubes when necessary. The debridement of wounds was carried out and amputation was used to prevent the spread of gangrene. Wounds were sutured with silk and a surgical operation for the repair of hare lip is described. It is stated in the writings of Galen the great Roman Physician who was born in 130 AD that ligatures had to be acquired from the distant land of the Celts. Other surgical procedures were the removal of nasal polyps and amazingly the removal of cataracts of the eye. There was the story of the warrior whose skull was fractured by a blow from a sword during the battle of Moyrath, Co Down, in AD 637. He was brought to Primate Senach in Armagh who had him sent to St Bricin the Abbott of Toomregan, in Co Cavan, who removed the injured part of his skull and brain. The chronicle of this episode states that his 'brain of forgetfulness' was removed and on his recovery, his intellect and memory were more powerful than ever. It has been suggested that this was in fact a decompression

operation. This view is supported by the fact that there is a skull in Queen's University which was found in Nendrum Abbey on Mahee Island in Strangford, which was destroyed by the Norsemen in AD 974, which has an 8 mm burr hole in the left parietal bone. There was a similar find in Co Meath dated from the pre-Christian period.

Blood letting, venesection was a surgical procedure frequently employed.¹¹ Different sites were used for different conditions, at different times of the seasons. There was usually a room in the monastery set aside for blood letting. Various mishaps occurred during these procedures. There is the story of the educated clerk who lost his knowledge of letters for a full year after blood letting and only recovered his faculties a year later after a further blood letting. The monastic practice of venesection, in spite of its now obvious ineffectiveness, persisted throughout the middle ages and is known to have been performed regularly, even into relatively modern times. It perhaps suggests that an elaborate procedure, even if relatively ineffective, impresses both physician and patient and prolongs its use.

In the eighth century, Ireland was still in close contact with Europe and a centre of learning. The great Emperor Charlemagne's advisor on educational matters was educated at Clonmacnoise. Charles II (Charles the Bold) sent for the celebrated Irish scholar John Scotus Erigenia to translate certain Greek works.

Then in 795 Ireland was attacked for the first time by the Norsemen. They attacked and plundered and destroyed the monastic settlements. In 830 Armagh was plundered three times in one month by the Norsemen under Turgesius. The Annals of Innisfallen which were said to be written in 869 AD, states that the city was burned with its hospitals and leper houses. These latter houses were probably houses where people with highly infectious diseases could be isolated and more likely than not this was a disease other than leprosy. It has been suggested that it was a virulent form of scabies of Norwegian origin, said to have come from infected wolves. Acta Sanctorum, states that St Patrick maintained a certain leper in his house and washed his sores with his own hands. The Vikings made fortified settlements and trading stations along the coast line. Dublin, Wexford, Waterford, Cork and Limerick were all Danish towns before they were Irish. What they did in Ireland, they did in Britain and France and even down to Morocco. The Irish fought back with some success under Maelseachlin and later Brian Boru, who finally defeated the Danes in 1014 at the battle of Clontarf. The Norsemen were not completely barbarous. They introduced a system of coinage to the country and like all Irish invaders intermarried and intermingled with the natives. Yet I cannot find any reference to physicians among them, nor does Fr F. X. Martin of Woodquay fame, the leading authority on the Vikings, know of any.

After the battle of Clontarf, Armagh again filled up with students and remained a centre of learning even into the 15th century, but the monastic settlements never regained their former glory as centres of learning and of medical influence. This was due to a large extent to the Papal Edict of Tours of 1163 which prevented monks from practising surgery, but which was interpreted by many as a general condemnation of surgical practice. Instead the hereditary physicians or leeches as they were called grew in importance. This was the period of the rise in importance of certain clans such as the O'Neills, the O'Donnells, the Maguires and the Anglo-Irish families such as the Ormondes, the Butlers, and the Fitzgeralds. To each of these

nobles or chieftans there was attached a family of hereditary physicians. The Dunleavys were hereditary leeches to the O'Donnells. In 1459 Cormac Dunleavy translated several medical texts into Irish.² The O'Cassidy's were leeches to the Maguires of Fermanagh. The O'Meara's were physicians to the Butlers, and were by their writings and repute greatly esteemed in Great Britain and on the Continent. They were perhaps the first of a long line of Irish hereditary physicians who published medical works in Latin. The O'Shiel's were physicians to the McMahon's of Oriel, but later gave their services to the O'Neill's. Some of the hereditary physicians went further afield, Nial O'Glacan, a hereditary physician born in Donegal became Professor of Medicine in Toulouse at the age of 29 and physician to the King of France.¹² In 1655 in Bologna he published books on physiology and pathology. He treated the great Hugh O'Donnell during his terminal illness in the palace of the King of Spain. Much later Dr. Bernard O'Connor of Kerry was physician to the King of Poland around the end of the 17th century. As mentioned earlier, surgery had fallen into disrepute and until this time all physicians had been true general practitioners.

Arabic physicians were the first to inculcate the doctrine of the inferiority of the surgical branch of the healing art and surgery was left to tradesmen or barbers with little learning. Each army at that time had its barber surgeons and the Norman armies that invaded Ireland in the 12th and 13th centuries were no exception. Despite the rise in the universities at this time the Normans were less well equipped surgically in 1300 AD than the Greeks in Alexandria in 200 BC. Yet some of the barber surgeons got considerable experience. This was the time of the bowmen and heavily armed knights, who when unhorsed were easy prey to infantrymen with long knives. Despite the absence of firearms, casualties were heavy. These barber surgeons were journeymen who had to travel long distances to their patient's residence, where even when the operation was successfully performed, they had to remain until the patient was fully recovered. Indeed they most probably only charged if the operation was successful. Eventually, in 1446, in recognition of their work, Henry VI established a guild of Barber Surgeons in London. Apprenticeship was then 5 to 7 years.¹³

From 1346-1361, the 'Black Death' swept Europe and hit Ireland in 1349. In Europe 24 million people, one quarter of the population died. Petrarch wrote that future generations would be incredulous and would be unable to imagine the empty houses, the abandoned towns, the squalid countryside, the fields littered with death and the dreadful silent solitude which seemed to hang over the whole world. This was bubonic plague, caused by the bacillus *Pasteurella pestis* and passed from rat to rat and rat to man by fleas. It is not normally infectious from man to man except by flea bite. The plague of 1349 was a particularly virulent type, producing a septicaemia and pneumonia, causing the patient's breath to become heavily infected. This resulted in spread by direct contact, with a mortality rate of up to 90 percent.

With the Renaissance in the 16th century came a reinfusion of the old Greek approach of direct observation and intellectual enquiry after a dormant period of a thousand years. Vesalius, who studied under Professor Sylvius, Professor of Anatomy at Paris, dissected incessantly for 5 years before publishing *De Fabrica* in 1543. Then Harvey discovered the circulation of the blood. Surgeons were no longer

afraid of haemorrhage. They became extremely rapid and brilliant operators with an accurate knowledge of anatomy and an amazing manual skill. There remained two great undiscovered problems, the relief of pain and the reduction in the appalling mortality from post operative infection. In 1577, Queen Elizabeth issued a charter uniting surgeons and barbers.

In Ireland the influence of the hereditary medical families began to decline with the eclipse of their patrons culminating with the flight of the Earls in 1607 and the later arrival of Cromwell. There now appeared a new type of physician who went abroad to study, such as Thomas Molyneux, born 1661, described by a British historian as the first great physician of Ireland or Thomas Arthur of Limerick, born 1593, educated at Bordeaux and Paris. He reported: "I went to Dublin to Mr George Sexton, who being thoroughly cured of gonorrhea, gave me a horse, value of £8 and £5 in gold. I then went to Mrs Chichester of Carrickfergus, labouring under dropsy and forewarned of her death within a few days, payment £5. On the 24th July 1633 Basil Brooke paid £1 for the treatment of urinary infection".² Somewhat later a H. Kennedy M.D. from Monaghan published a work on the chemical and medical properties of the sulphurous water of Aughnacloy. Then there was Sylvester O'Halloran, a Limerick doctor who was said to be a daring surgeon and a prolific writer. He was described as a tall thin man in his quaint French dress with his gold headed cane, beautiful Parisian wig and cocked hat.

As we are reminded annually, the native Irish were vanquished at the end of the 17th century by King William of Orange. Thereafter, for more than a century there was unbroken peace. As was the custom of the time the conquerors wielded absolute power and instituted stringent measures to ensure their continued supremacy. The natives were disenfranchised. They could become doctors, but not solicitors, barristers, or magistrates. They might not own a horse worth more than £5 while any settler offering £5 might claim any horse owned by a native. A native artisan could not follow his trade without paying quarterage, a special rate, to the town fathers. More importantly no settler could sell, give or bequeath land to a native. A native landowner could not bequeath his land as a whole. It had to be divided equally among his sons. No native could lease land unless the lease was at least two thirds the profit from the land. If his profit was more than one third, the person who informed of this fact could get the land from him. Foreign trade was curtailed and the setting up of new industry prohibited. These were the penal laws and although there was peace, discontent smouldered among the native population.

In 1641 the population of Ireland was 700,000; by 1841 it was eight million. The increase in population was mainly among the labouring classes and the small tenant farmers where the land was poorest. The increase in population was followed by continuous division, as I have explained, of already inadequate holdings. People cultivated their land not for profit, but to stay alive and in general existed on the single staple food—the potato. The result was a standard of living at hunger level with the occurrence of succeeding famines culminating in the supreme tragedy of 1847. There were regular violent outbreaks of cholera, typhus, typhoid, smallpox, scarlatina and influenza. Tuberculosis became endemic and in the ten years 1831-1841 caused more than a third of all deaths from infectious disease. The death rate from tuberculosis continued to rise until 1902, before gradually declining again.¹⁴ By the end of the 17th century, smallpox, which was a mild illness in the

16th century became a common disease of childhood and throughout the 18th century destroyed more young children than any other disease. Measles too was a fairly mild disease until towards the end of the 18th century, when it too became more common and more lethal, not just because of a debilitated population, but apparently also associated with an increased virulence. There was some effort made to relieve this suffering and misery. In 1703 the Irish Parliament passed an act enabling the erection of a workhouse in the city of Dublin for employing and maintaining the poor thereof. One of the reasons for erecting the workhouse was declared to be 'to preserve the lives of unwanted children and the educating and instructing them in the Protestant religion'. Part of this workhouse was reserved for a foundling home or hospital. At one of the gates to the workhouse there was a basket attached to a revolving door. Those who wished to abandon a child, deposited the child in the basket, rang the bell and left. Children in the home were fed on passade, bread soaked in water with a little milk added. Some children were farmed out to foster parents at a fee of £2 per year, and all children who were farmed out were branded on the arm. The majority of infants admitted to the home were healthy, when ill they were removed to the infirmary. The only treatment children received was 'the bottle', a narcotic mixture, after which they were easy for an hour or two. Between 1791 and 1796, 5,716 infants were admitted to the infirmary and one was discharged alive. Two old women were in charge of a ward of 60 children. Two doctors were supposed to attend. The dead were left until there were sufficient numbers, worthy of a grave-diggers time. It is not surprising that in 1797, a committee set up by the Irish Parliament, dismissed the physician, surgeon, apothecary, as well as the Board of Governors.²

Towards the end of the 18th century, county surgical infirmaries were built in many of the country towns. In 1767 the Armagh County Infirmary came into operation and Joseph Strewbridge was appointed surgeon at an annual salary of £100.¹⁵ On the 1st October 1774, the housekeeper was advised to hire two nursing assistants at a salary of £4 per annum. It was part of their duty to change the straw in the patients beds once every month and their sheets once every month or more often if necessary, and to have the men shave at least twice per week. For every instance of neglect or carelessness reported by the surgeon at least one shilling was to be deducted from their wages. At that time it was stated that the drug bill should not exceed £1.10s. per month.

There were certain rules of the Infirmary. Patients were not allowed to play cards or dice or any other game or smoke tobacco in the house. That such patients as were able were to be employed in nursing, washing or ironing the linen, cleaning the wards, or in such service as the Matron should require. That when patients were cured they be enjoined to return public thanks to Almighty God in their respective places of worship. In the surgical wards at that time four diseases were so prevalent that they became known as the hospital diseases, erysipelas, septicemia, pyaemia and hospital gangrene. Amputation statistics were frightful, mortality varied from 25 to 60 percent. For we must remember that it was little more than a hundred years ago that Joseph Lister appreciated the significance of Pasteur's discovery of the presence of organisms in the fermentation process and introduced aseptic techniques.

Then in 1838, the poor relief act established a workhouse system in 130 union

districts throughout Ireland. Between 1841 and 1845, 130 workhouses were established, 43 of these in Ulster, which even by to-day's standards was a remarkable building programme. Each union district was governed by a board of guardians who employed the relieving officer and the doctor. A person seeking assistance under the poor law applied to the relieving officer who assessed the social and medical needs and issued an order for relief, if he saw fit. The doctor then saw the patient in the workhouse or his home. At the height of the famine on the 3rd July 1847, out of a total population of about eight million, nearly three million received food gratuitously at the hands of the relieving officer and close to a million meals were sold at a moderate cost to those who were unable to procure food otherwise. At that time public works afforded employment to nearly three quarters of a million people. The workhouses and their auxiliary hospitals gave shelter and food to more than one million in the space of two years. At one period 800,000 were relieved daily at the charge of the poor rate. In addition 207 temporary fever hospitals were set up throughout Ireland through which passed, in 1847 and 1853 more than a quarter of a million.¹⁴ Emigration amounting to nearly one million people occurred over a six year period. The famine had a less disastrous effect on the North than many other parts of the country. County Antrim was said to have a blight resistant potato, while oatmeal was part of the diet in these parts. Typhus was rife, particularly in Belfast and the surrounding area. As you know, typhus is a rickettsial disease presenting as fever, delirium and a blotchy rash. It is spread by the bite of an infected body louse and appears to require malnutrition and sordid living conditions to thrive. It was typhus that decimated Napoleon's army on the long march back from Moscow, the lice spreading rapidly among the debilitated soldiers as they lay huddled together at night to keep out the cold. This same louse spread rapidly among the starving peasants in the workhouses. Although the famine was not as severe in the North, typhus was more common, particularly in Belfast. It was estimated that one person in five got typhus fever. According to the census of 1841 the mortality rate per 1,000 in Belfast was 28.2, the average age at death was 9 years and one half of the population was under 20 years of age. The proportion of fever deaths to all deaths was about 1 in 16 in the whole of Ireland and about 1 in 6 in Belfast. The mortality in the workhouse was frightful. In one particular week in a Lurgan workhouse 95 died, while in Ballina 150 died. Dr Seaton Reid, the physician in charge of the Union Fever in Belfast, estimated that during the epidemic of 1847 to 1848, there were 13,649 patients admitted with fever with a 13 percent mortality, 1,836 admitted with dysentery with a 32 percent mortality, 325 admitted with smallpox with a 34 percent mortality.¹⁸ Cholera was not a problem then. It hit Belfast in 1849 and lasted for a full year and when it did, 1 in 50 of the population were affected with a mortality of 36 percent. As can be appreciated dysentery and cholera had such a high mortality, due to the inability to replace fluids parenterally and correct electrolyte imbalance.

Until the middle of the nineteenth century for the bulk of the people there was no home medical relief. There were some dispensaries established by landlords and gentry, prior to 1800, but these were voluntary institutions subsidised to a very limited extent by government funds. Medical advice was given gratuitously, but the supply of medicines was severely limited and the doctor paid domiciliary visits only to those who lived within a short distance of the dispensary.

Under the medical charities act of 1851 dispensary districts were formed under the

management of the Board of Guardians.^{17, 19} There appears to have been no shortage of applicants for the post of dispensary medical officer in spite of low pay. Dispensary districts often extended over 100 square miles with a scattered population of some 4 to 5 thousand. The conditions of work in the workhouses remained appalling, with no prospects of promotion or pension. More than fifty doctors died in one year from infectious diseases. William Stokes, the noted Dublin physician, stated that the risk for those doctors working in a workhouse was greater than the soldiers in the front line of battle. A sum of £30 annually was common for a doctor in charge of a workhouse and £70 if a district was included. Extra fees were paid for maternity work and vaccination. The fee for a normal delivery was ten shillings and one pound for a difficult confinement. If a district involved a great deal of travelling, a special allowance was sometimes paid as it would then be necessary for the dispensary doctor to keep two horses. So the duties and guidelines for modern practice were established. As we can see, our forefathers were paid a basic practice allowance with item of service payments and a mileage allowance. At this time, a fact until recently unnoticed by historians, permission was granted to introduce a bill into the British Parliament, which set out the foundations of a Royal College of General Practitioners.²⁰ Unfortunately for us and for general practice, this did not materialize for a further hundred years.

By the turn of the century there were more than eight hundred doctors employed in the dispensary service. It was highly efficient, for example the vaccination programme wiped out smallpox, so that the last case of smallpox occurred in this country in 1911. At that time it was probably the best rural health service in the world, due in a large measure to the humanity of those who operated it.

In this talk I have not done justice to some of the great physicians of the past such as Stokes, Graves, Corrigan, Whitla or to our famous hospitals, nor to the international contribution of Irish Medicine, particularly in the Colonial and Empire period in the developing countries, the part played by Irish medical men and women in the United States of America, Canada, Australia and New Zealand, by medical missionaries, by research workers; a vast and magnificent record. I have attempted more to paint a picture of the gradual evolution of general medical practice through the centuries. When we look back over the centuries we can marvel at the great men and their great discoveries, yet appreciate that medicine advanced in many instances in spite of us. These sentiments are aptly and humbly stated by two of the greatest scientists in history. The first, Isaac Newton, said, 'If I have seen further than other men it is because I have been standing on the shoulders of giants'. The second, Ambrose Paré, the renaissance surgeon said, 'Je le pansay, Dieu le guarist; I dressed him, God healed him'.

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